

Remarks

In view of the above amendments and the following remarks, reconsideration of the rejections and further examination are requested.

The specification and abstract have been reviewed and revised to make a number of editorial revisions thereto. A substitute specification and abstract including the revisions have been prepared and are submitted herewith. No new matter has been added. Also submitted herewith are marked-up copies of the specification and abstract indicating the changes incorporated therein.

Claims 1-3 and 7-19 have been rejected under 35 U.S.C. §102(b) as being anticipated by Takegawa (JP 08-273173). Claims 4-6 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Takegawa in view of Kiriyama (US 6,633,594).

Claims 1-19 have been canceled without prejudice or disclaimer to the subject matter contained therein. Further, new claims 20-27 have been added.

It is submitted that the above-mentioned rejections are inapplicable to the new claims for the following reasons.

Claim 20 is patentable over Takegawa, since claim 20 recites an optical head including, in part, a beam shaping device operable to shape a light beam emitted from a light source, wherein the beam shaping device includes at least two electrodes for applying a voltage and a nonlinear optical material arranged between the at least two electrodes, and wherein a refractive index of the nonlinear optical material changes in accordance with the applied voltage. Takegawa fails to disclose or suggest the beam shaping device as recited in claim 20.

Takegawa discloses an optical head including an electrooptical light deflection element 2 that is operable to deflect light emitted from a laser diode 1. The electrooptical light deflection element 2 includes an electro-optic crystal 2a having electrode films formed on both its top and bottom surfaces. A voltage V is applied to the electrode films on the opposite surfaces of the electro-optic crystal 2a based on a tracking error signal and the application of the voltage V results in the light beam from the laser diode 1 being deflected in the electrooptical light deflection element 2. (See Abstract and Figures 1 and 2).

Based on the above discussion, it is apparent that the electrooptical light deflection element 2 is capable of deflecting the light beam from the laser diode 1. However, there is no disclosure or suggestion in Takegawa that the electrooptical light deflection element 2 also

shapes the light beam. Further, as is illustrated in Figures 1 and 2 of Takegawa, the side surface of the electrooptical light deflection element 2 to which the light beam from the laser diode 1 enters the electrooptical light deflection element 2 (i.e., the incidence surface) and the side surface of the electrooptical light deflection element 2 from which the light beam exits the electrooptical light deflection element 2 (i.e., the emission surface) are parallel. Since the incidence surface and the emission surface of the electrooptical light deflection element 2 are parallel to each other, it is apparent that the electrooptical light deflection element 2 does not perform any shaping of the light beam from the laser diode 1. Therefore, the electrooptical light deflection element 2 does not correspond to the claimed beam shaping device. As a result, claim 20 is patentable over Takegawa.

As for Kiriama, it is relied upon as disclosing a number of different crystal materials. (See column 4, lines 54-65). However, Kiriama also fails to disclose or suggest the beam shaping device as recited in claim 1.


In addition to being patentable over the references for the reasons set forth above in support of claim 20, claim 22 also recites that the beam shaping device is a substantially prism-shaped beam shaping device having an incidence surface and an emission surface that are not parallel with each other and which is operable to change an emerging angle of the light beam. As discussed above with regard to claim 20, it is apparent that the incidence surface and the emission surface of the electrooptical light deflection element 2 are parallel to each other. As a result, Takegawa also fails to disclose or suggest this feature of claim 23.

Because of the above-mentioned distinctions, it is believed clear that claims 20-27 are allowable over the references relied upon in the rejections. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 20-27. Therefore, it is submitted that claims 20-27 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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